



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,733	10/22/2003	Irving Toivo Salmeen	FGT 1840 PA	2732
28549	7590	05/16/2007	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH ROAD, SUITE 250 SOUTHFIELD, MI 48034			A, MINH D	
			ART UNIT	PAPER NUMBER
			2821	
			MAIL DATE	DELIVERY MODE
			05/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/605,733		SALMEEN ET AL.	
	Examiner		Art Unit	
	Minh D A		2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's communication filed on 3/5/07 has been carefully considered by the examiner. The arguments advanced therein are persuasive with respect to the rejections of record, and those rejections are accordingly withdrawn. In view of a further search, however, a new rejection is set forth below. This action is not made final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Stam et al (Patent No: US 6, 429, 594).

Regarding claim 19, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising at least one light source (headlamp (22)); at least one beam-forming assembly optically coupled to the at least one light source (headlamp) and forming an illumination beam; a transceiver (an image array sensor (52) is receiving a signal and transmitting signal to control unit (44)) for generating a first communication signal; receiving a second communication signal generated from at least one object that is external to the vehicle in response to said first communication signal; and a controller(control unit (44) coupled to said at least one beam-forming assembly (housing or enclosure or

Art Unit: 2821

cover) and adjusting said illumination beam in response to said second communication signal. Col.6, lines 41-67 to col.13, lines 1-59.

Regarding claim 20, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising an imaging system having an image array sensor (52) for detecting at least one communication signal generated from at least one object (on coming vehicle and leading vehicle) that is external to the vehicle; and the control unit (44) for adjusting illumination output of the headlight system in response to said at least one communication signal. Col.6, lines 41-67 to col.13, lines 1-59.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4-12, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Stam et al (Patent No: US 6, 429, 594) in view of Seko (Patent No: US 4, 967, 319).

Regarding claim 1, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising at least one light source (headlamp having a light source); at least detection sensor (image system (42) having a plurality of sensors (52) for detecting at least one object (on coming vehicle or any leading vehicle (col.8, lines 31-46)) and a control unit (44) for generating at least one

Art Unit: 2821

object (on coming vehicle or leading vehicle) detection signal; and a controller (headlamp system (46) having a headlamp controller (76)) coupled to the at least one object detection sensor(52) and a memory (element (416), figure 17b, col.19, lines 20-35) coupled to said controller (processor (66)) and storing a plurality of beam patterns (low or high beam, col.9, lines 16-46), said controller (control unit (44) processes the image to determined if any vehicle (26, 28) are within the glare area) corresponding to elect at least one of said beam patterns in response to said object detection signal and headlamp controller(76) for adjusting illumination output of said at least one light source (headlamp (22) in response to said object detection signal; wherein the headlamp controller (76) for adjusting said illumination output comprises (control system (40) for adjusting an illumination parameter selected from at least one of beam pattern, beam location, beam focus, and beam angle(col.13, lines 3-39). Col.6, lines 41-67 to col.13, lines 1-59.

Stam does not discloses that, at least one beam-forming assembly optically coupled to the at least one light source and a controller coupled to the at least one beam-forming assembly.

Seko discloses a headlight apparatus for automotive vehicle, comprising a headlamp for detecting a leading vehicle, an adjusting mechanism for adjusting the optical axis of the headlamp, see abstract and figure 2) corresponding to at least one beam-forming assembly optically coupled to the at least one light source and a controller coupled to the at least one beam-forming assembly (note that, the beam-forming assembly is housing or enclosure or cavity of headlamp).

Art Unit: 2821

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ at least one beam-forming assembly optically coupled to the at least one light source and a controller coupled to the at least one beam-forming assembly as suggested by Seko in the headlamp control of Stam in order to adjust the optical of the headlamp such as high beam to low beam, since the such a combination of optical beam forming assembly coupled the at least one light source and a controller coupled to the at least one beam-forming assembly would adjust up and down for the headlamp as evidenced by the teaching of Seko.

Regarding claim 4, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising the at least one object detection sensor (array sensor (52)) is a receiver (see the signal send to the sensor (52), as shown on figure 2) and receives a communication signal from said at least one object (on coming vehicle or leading vehicle), said controller((processor (66)) for adjusting said illumination output in response to said communication signal.

Regarding claim 5, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising: wherein said at least one object detection sensor (52) is a passive object detection sensor.

Regarding claim 6, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising wherein a radio frequency sensor. Col. 25, lines 9-16.

Regarding claim 7, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising (imaging system (40) would have receiving signal

Art Unit: 2821

from ambient lens system and vehicle imaging lens system (48) and transmitting signal to the control unit as shown figure 2) corresponding to a transmitter coupled to said controller and transmitting a first communication signal, said object detection sensor receiving a second communication signal in response to the first communication signal and adjusting said illumination output in response to said second communication signal.

Regarding claim 8, Stam discloses, in figures 2-6, a continuously variable headlamp control, comprising wherein said controller adjusts said illumination output in response to at least one vehicle operating condition.

Regarding claim 9, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising wherein said controller adjusts said illumination output in response to at least one vehicle operating condition selected from at least one of velocity, speed, directional heading, location, light status, turn indicator status, windshield wiper status, windshield wiper speed, and engine speed.

Regarding claim 10, Stam discloses, in figures 2-8, a continuously variable headlamp control, comprising a navigation system coupled to said controller, said controller receiving information related to at least a portion of said at least one vehicle operating condition from said navigation system. Col.9, lines 50-58.

Regarding claim 11, Stam discloses, in figures 2-6, a continuously variable headlamp control, comprising wherein said controller (control unit (44)) for adjusting a vehicle state in response to the object detection signal.

Art Unit: 2821

Regarding claim 12, Stam discloses, in figures 2-6, a continuously variable headlamp control, comprising wherein said controller (control unit (44) in adjusting a vehicle state adjusts at least one vehicle state selected from velocity, speed, directional heading, acceleration, location, steering wheel angle, brake status, throttle angle, turn signal status, traction control status, differential wheel speed, light status, turn indicator status, windshield wiper status, windshield wiper speed, and engine speed.

Regarding claim 15, Stam further discloses, in figures 2-8, a continuously variable headlamp control, comprising at least one light emitter optically coupled to the at least one beam-forming assembly, the controller independently adjusting illumination output of each of said at least one light emitter.

Regarding claim 16, Stam discloses, in figures 2-6, a continuously variable headlamp control, comprising wherein said object detection signal is generated in response to illumination generated from said at least one object.

Regarding claim 17, Stam discloses, in figures 2-6, a continuously variable headlamp control, comprising wherein said object detection signal is generated in response at least one communicative light signal generated from said at least one object.

Regarding claim 18, Stam discloses, in figures 2-6, a continuously variable headlamp control, comprising at least one light emitter optically coupled to said at least one beam-forming assembly and emitting a communicative light signal, said object detection sensor generating said object detection signal in response to said communicative light signal.

Art Unit: 2821

6. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stam et al (Patent No: US 6, 429, 594) in view of Seko (Patent No: US 4, 967, 319) as applied to claims 1 and 11 above, and further in view of Stam et al (Pub. No. US 2002/0156559).

Regarding claim 13, Stam and Seko further differ from the claimed invention by not showing a cruise control signal and said controller in response to said cruise control signal adjusts said vehicle state.

However, Stam (Pub. No. US 2002/0156559) discloses, a cruise control system. Col.8, paragraph [0076].

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the cruise control as suggested by Stam (Pub. No. US 2002/0156559) in the headlamp control system of Stam in order to set the speed limit of vehicle as evidenced by the teaching of Stam (Pub. No. US 2002/0156559).

Regarding claim 13, Stam and Seko further differ from the claimed invention by not showing wherein said controller adjusts a cruise control parameter in response to said object detection signal.

However, Stam (Pub. No. US 2002/0156559) discloses, the controller adjusts a cruise control parameter in response to said object detection signal. Col.8, paragraph [0076].

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the cruise control as suggested by Stam (Pub. No. US 2002/0156559) in the headlamp control system of Stam in order to set

Art Unit: 2821

the speed limit of vehicle or detect on coming vehicle as evidenced by the teaching of Stam (Pub. No. US 2002/0156559).

Citation of relevant prior art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Stam et al . (U.S. Patent No. 2004/0143380) discloses a image acquisition and processing and exterior lighting control.

Prior art Stam et al. (U.S. Patent No. 6,947,576) discloses a system for controlling exterior vehicle lights.

Prior art Stam et al. (U.S. Patent No. 6,429,594) discloses a continuously variable headlamp..

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2: 45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Owens Douglas W can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public

Art Unit: 2821

PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner

Minh A

Art Unit 2821

5/10/07

Shih-Chao Chen
SHIH-CHAO CHEN
PRIMARY EXAMINER